

# SERVIR – 20 years of Connecting Space to Village

National Aeronautics and Space Administration

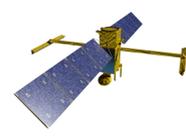


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**The SERVIR program delivered 20 years of societal impact by addressing needs from over 50 countries with the perspective from space.**

The reach of NASA's Earth Science investments extended to hundreds of highly capable technical organizations for the benefit of millions of people worldwide. SERVIR contributed to secure food, clean water, air and ecosystems, and helped people prepare for and reduce impacts of disasters and environmental changes. From cutting edge applications in GeoAI to high-impact maps and apps, more institutions and countries are capable users of Earth observing satellites to improve their own people's lives, livelihoods, and the environment.

**Leveraging NASA's Earth Fleet: 38 satellites and sensors used**



Surface Water and Ocean Topography (SWOT)



Plankton, Aerosol, Cloud, ocean Ecosystem (PACE)



NASA-ISRO SAR Mission (NISAR)

## SERVIR Connected US Science to Global Challenges

### SERVIR in Action



#### SERVIR science supports global hydropower

GEOGLOWS streamflow forecasts help identify how reservoir conditions impact power supply, informing decisions like opening/closing floodgates or transferring excess power to the grid.

In Ecuador, the Ministry of Electricity and Mines uses GEOGLOWS to brief the President on hydropower conditions.

On the Rwanda - Tanzania border, the Nile Basin Initiative uses a GEOGLOWS-based tool to manage the Rusumo Power Station.



#### Peru uses SERVIR tools to address illegal mining

SERVIR's Radar Mining Monitoring tool (RAMI) gives near real-time updates to pinpoint illegal mining activity in the Peruvian Amazon.

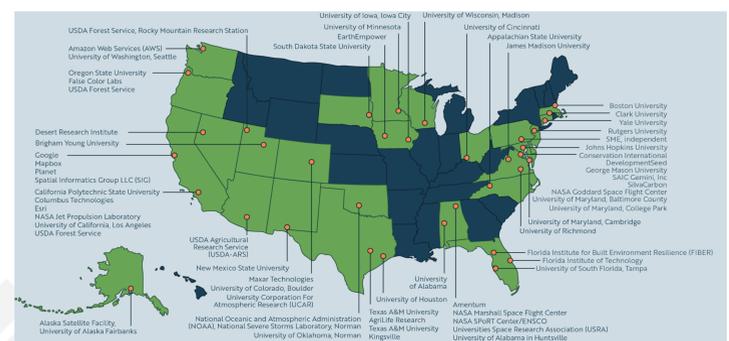
Peru's Illegal Mining Observatory uses SERVIR's RAMI tool to combat illegal mining in Peru. This keeps illegal gold out of U.S. markets and undercuts the spread of international crime.



#### More expedient and cost-effective agriculture mapping

In collaboration with the US Department of State, NASA capacity building efforts collaborated directly with stakeholders in Bhutan to co-develop the Farm Action Toolkit (FAcT).

The National Land Commission is using FAcT to identify smallholder farms eligible for tax concessions to improve farmer livelihoods and food security outcomes.



**SERVIR leveraged US research investments and its global network to maximize every dollar spent and yield high returns on investment.**

## Acknowledgements & References

Hundreds of dedicated individuals and institutions contributed to SERVIR every day. This work and these results are only possible because of SERVIR hubs (hosted at ADPC, CATIE, CIAT Alliance Bioversity, ICIMOD, ICRISAT, and their many local and regional consortium members), SERVIR Applied Sciences Team, SERVIR Science Coordination Office at NASA MSFC, USAID Washington and Missions around the world, the SERVIR Support Team, and many other partners and collaborators. For more, visit <https://www.nasa.gov/servir/>

### Thematic Service Areas



**Agriculture & Food Security**



**Water Security**



**Ecosystem & Carbon Management**



**Weather & Climate Resilience**



**Air Quality & Health**